ABSTRACT

A cathode in an indirectly heated cathode ion source is supported by at least one rod or pin. The cathode is preferably in the form of a disk, and the support rod is smaller in diameter than the disk to limit thermal conduction and radiation. In one embodiment, the cathode is supported by a single rod at or near its center. The support rod may be held by a spring-action clamp for simple and reliable clamping and unclamping. The disk shaped cathode and the support rod may be fabricated as a single piece. A filament that emits electrons thermionically may be disposed around the rod in close proximity to the cathode.